FIG. 6.1 WARM-UP RATE (with full size Gaymar Blanket)

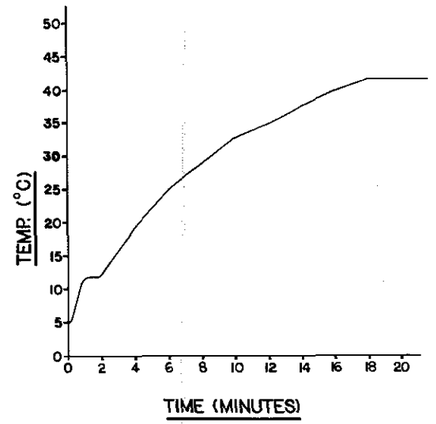


FIG. 6.2 COOL DOWN RATE (with full-size Gaymar Blanket) AFTER INITIAL START-UP.

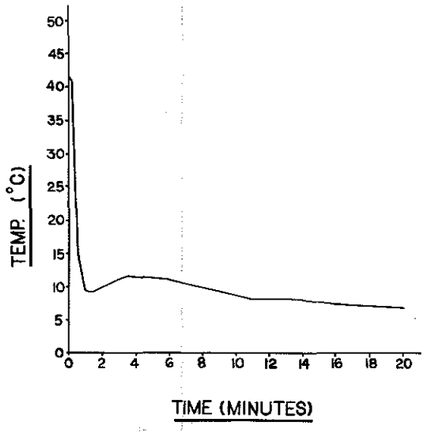
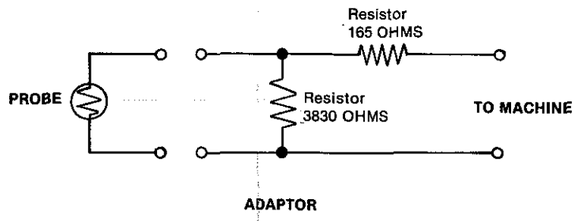


FIG. 6.3 ADP-10A CIRCUIT DIAGRAM



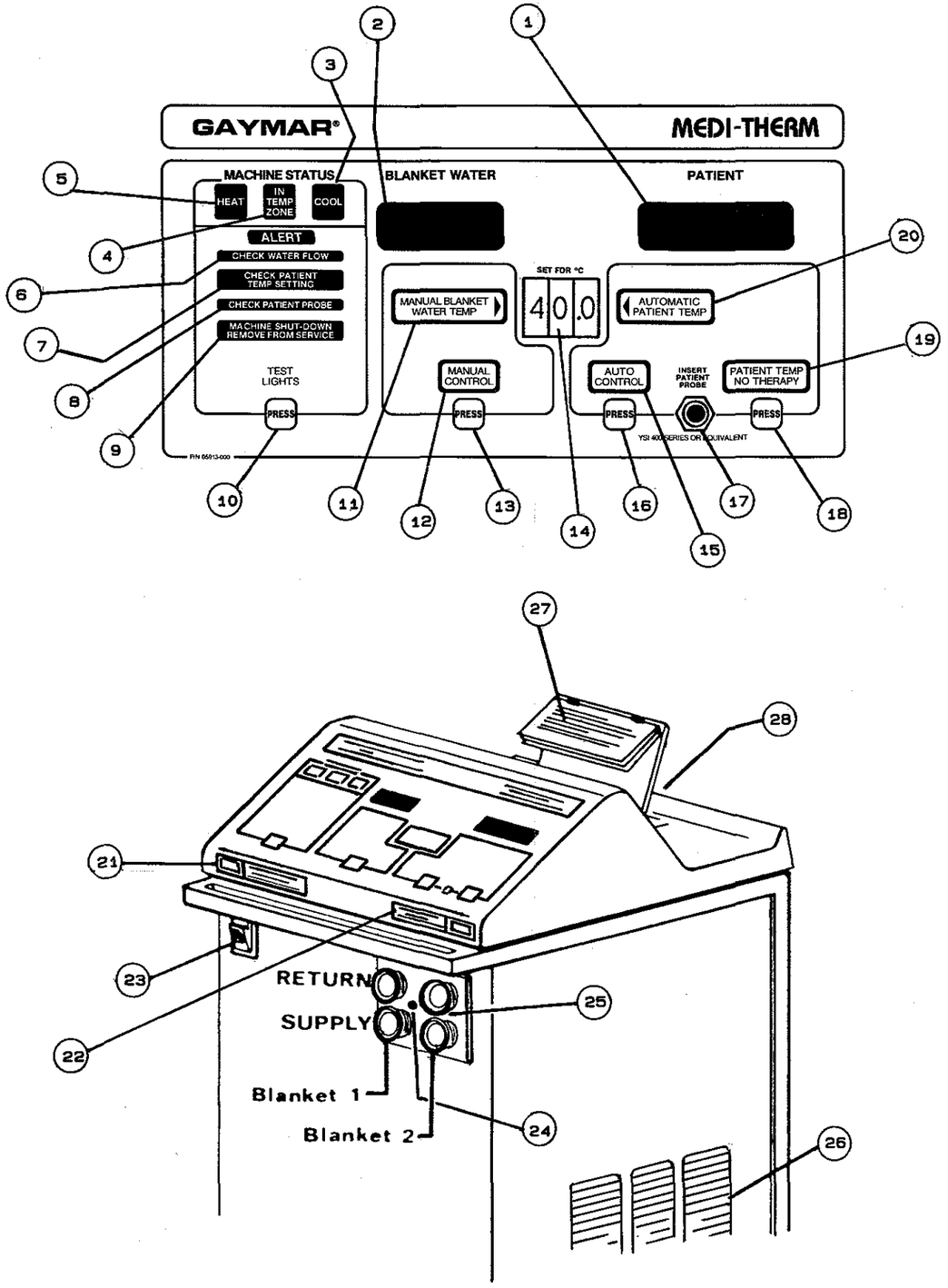

GAYMAR®
MEDI-THERM
MACHINE STATUS
HEAT
IN TEMP ZONE
COOL
ALERT
CHECK WATER FLOW
CHECK PATIENT TEMP SETTING
CHECK PATIENT PROBE
MACHINE SHUT-DOWN REMOVE FROM SERVICE
TEST LIGHTS
PRESS
BLANKET WATER
MANUAL BLANKET WATER TEMP
MANUAL CONTROL
PRESS
SET FOR °C
40.0
PATIENT
AUTOMATIC PATIENT TEMP
AUTO CONTROL
PRESS
INSERT PATIENT PROBE
YSI 400 SERIES OR EQUIVALENT
PATIENT TEMP NO THERAPY
PRESS
P/N 05913-000
RETURN
SUPPLY
Blanket 1
Blanket 2
1
2
3
4
5
6
7
8
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FIG. 6.4

HEATING : WHEN THE MEDITHERM UNIT IS IN THE HEATING MODE, WATER FLOWS IN THE PATH SHOWN BELOW.

NOTE: K1: COLD SOLENOID VALVE
K2: HOT SOLENOID VALVE

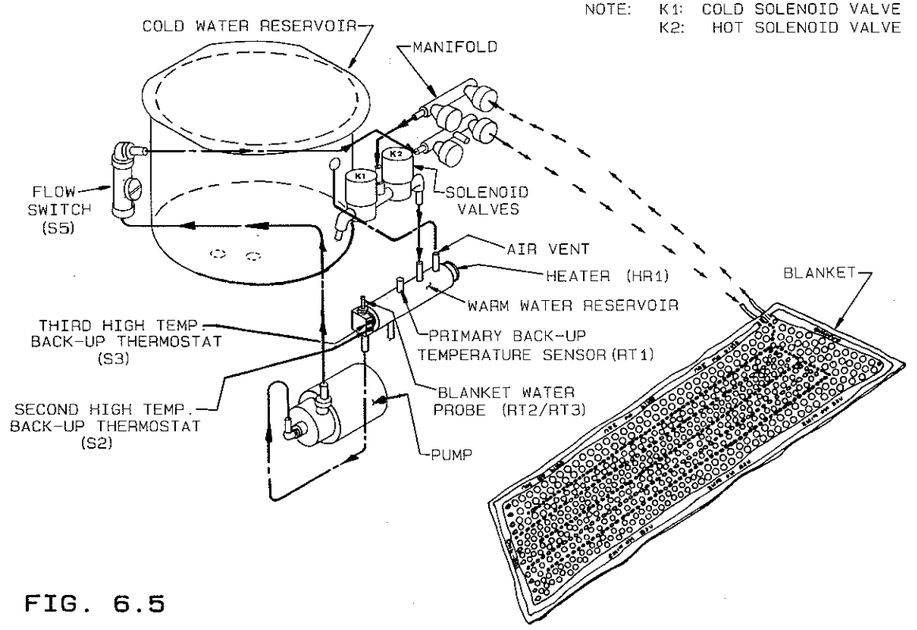


FIG. 6.5

COOLING : WHEN THE MEDITHERM UNIT IS IN THE COOLING MODE, WATER FLOWS IN THE PATH SHOWN BELOW.

NOTE: K1: COLD SOLENOID VALVE
K2: HOT SOLENOID VALVE

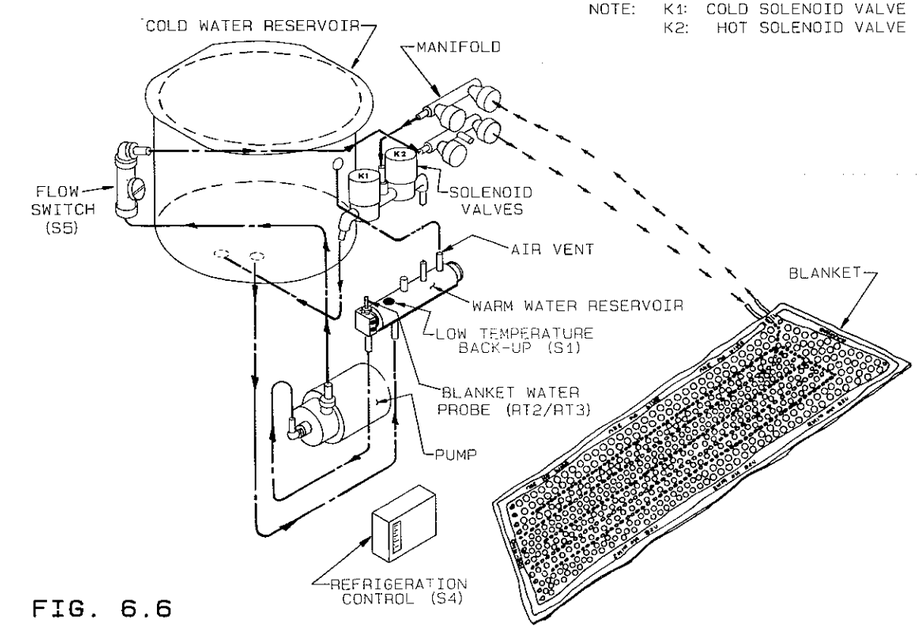
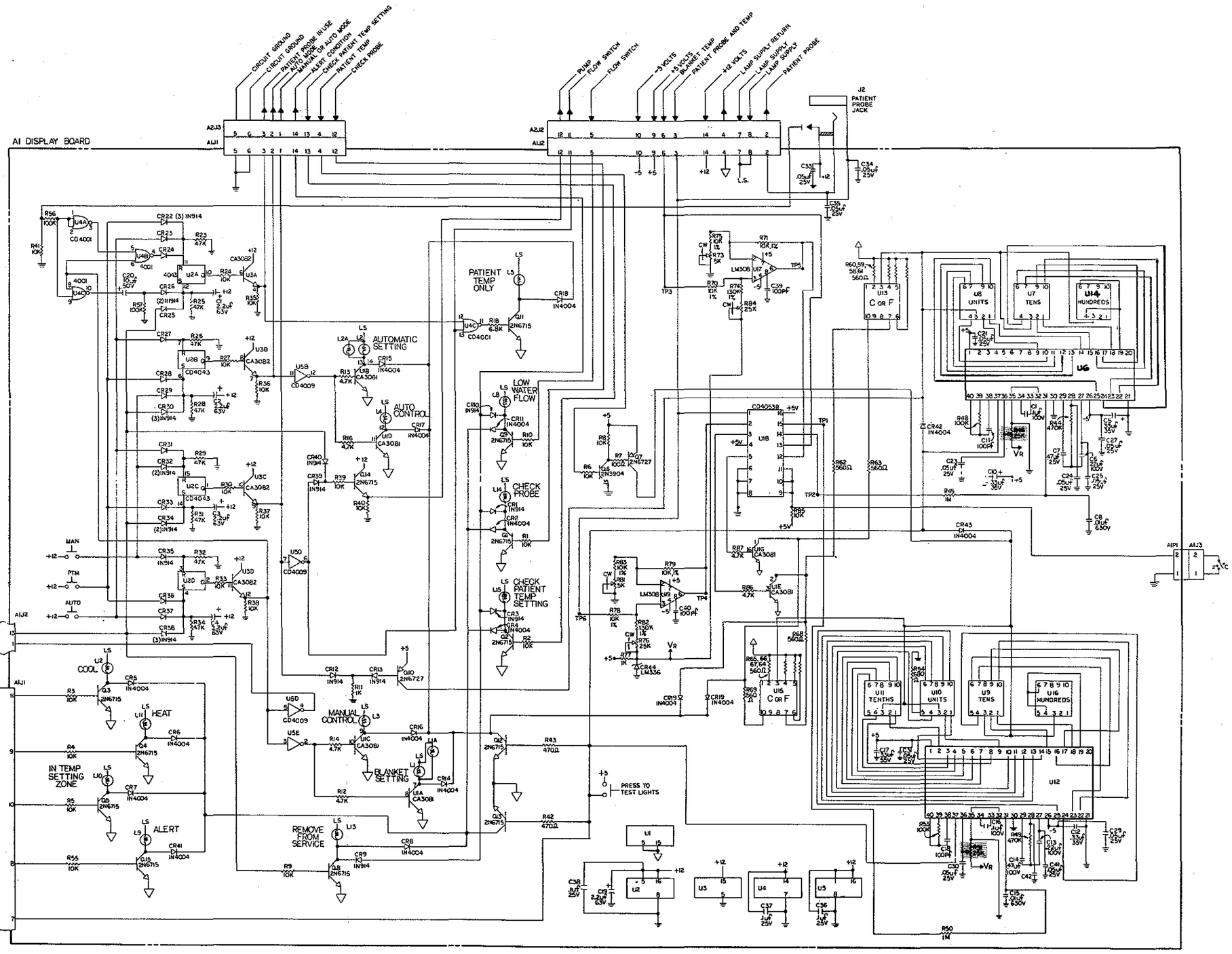


FIG. 6.6



NOTES

ALL RESISTORS ARE ±5% TOLERANCE UNLESS OTHERWISE INDICATED

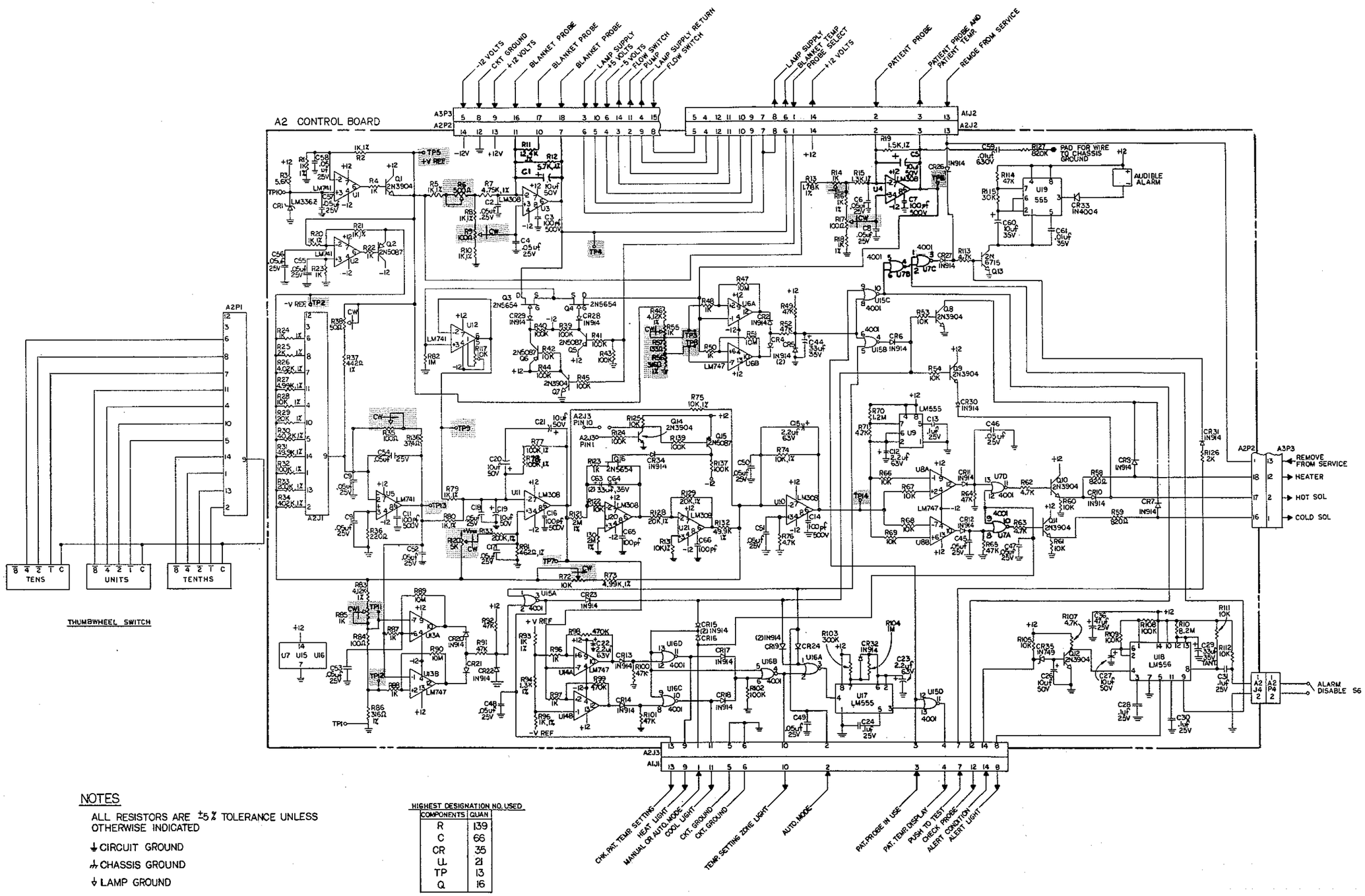
⏚ CIRCUIT GROUND

⏚ CHASSIS GROUND

⏚ LAMP GROUND

ELECTRICAL SCHEMATIC – A1 DISPLAY BOARD

FIG. 6.7



NOTES

ALL RESISTORS ARE ±5% TOLERANCE UNLESS OTHERWISE INDICATED

⏚ CIRCUIT GROUND

⏚ CHASSIS GROUND

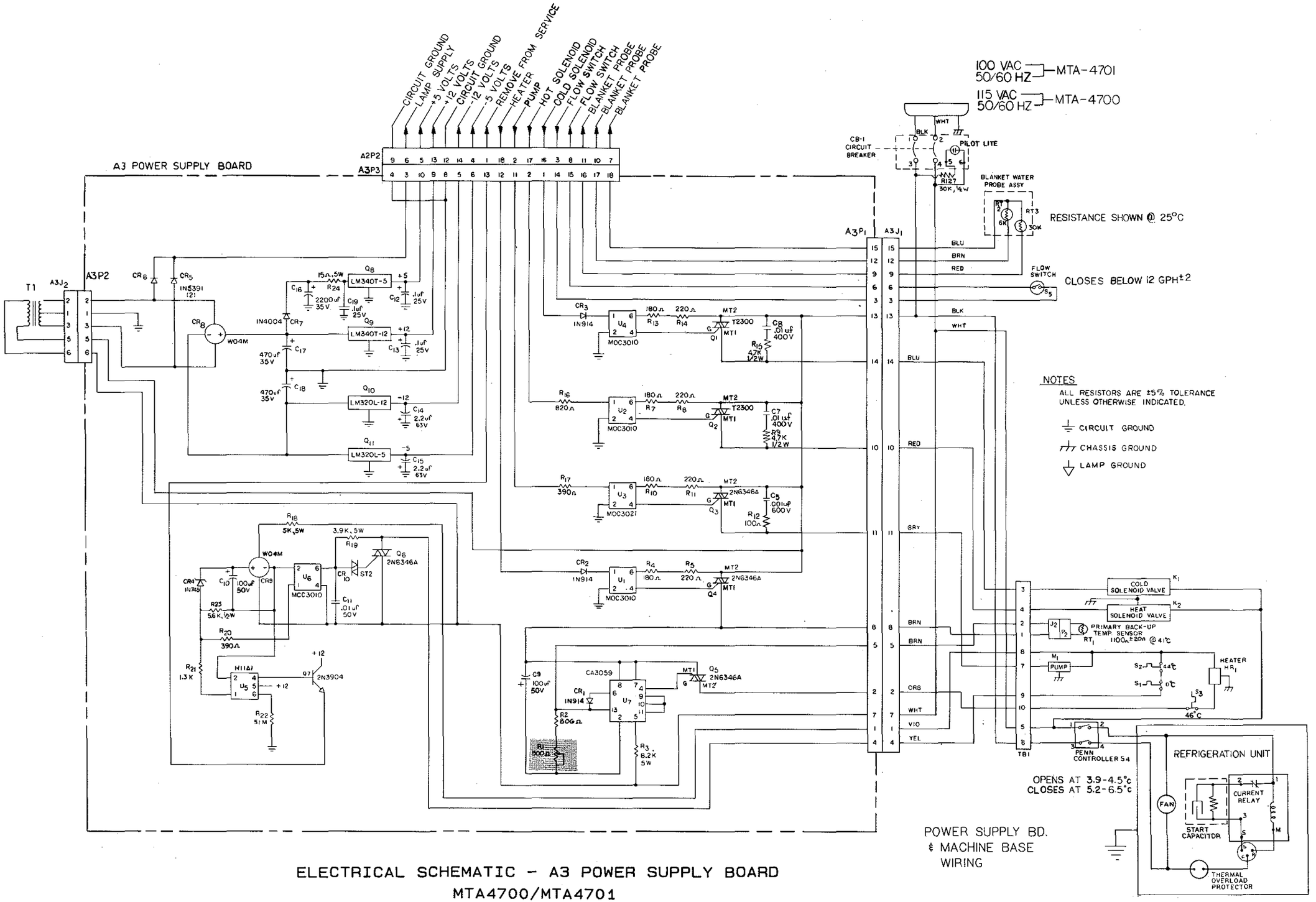
⏚ LAMP GROUND

HIGHEST DESIGNATION NO. USED

COMPONENTS	QUAN
R	139
C	66
CR	35
U	21
TP	13
Q	16

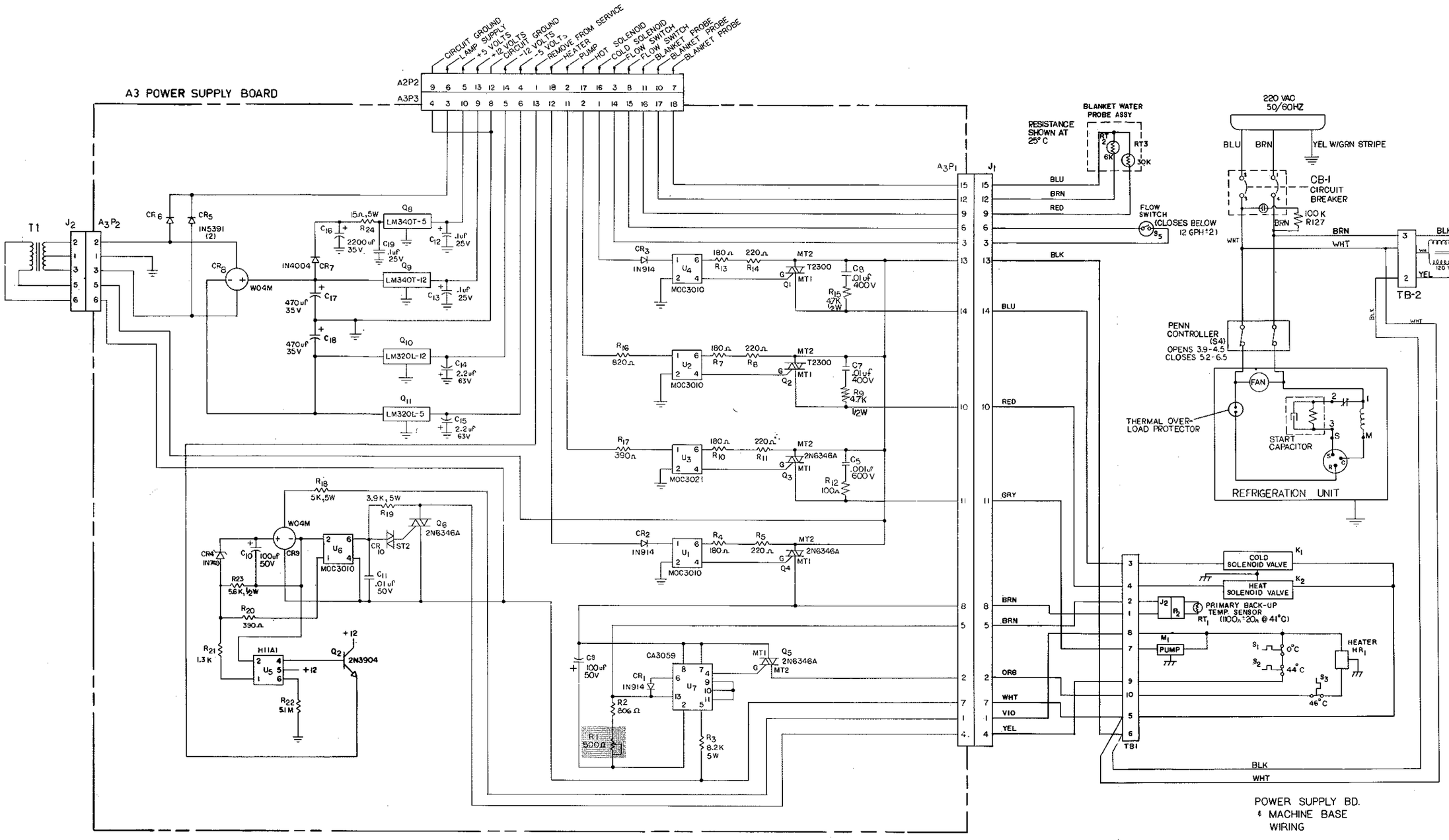
ELECTRICAL SCHEMATIC - A2 MAIN CONTROL BOARD

FIG. 6.8



ELECTRICAL SCHEMATIC - A3 POWER SUPPLY BOARD
MTA4700/MTA4701

FIG. 6.9



NOTES
ALL RESISTORS ARE ±5% TOLERANCE UNLESS OTHERWISE INDICATED

⏚ CIRCUIT GROUND

⏚ CHASSIS GROUND

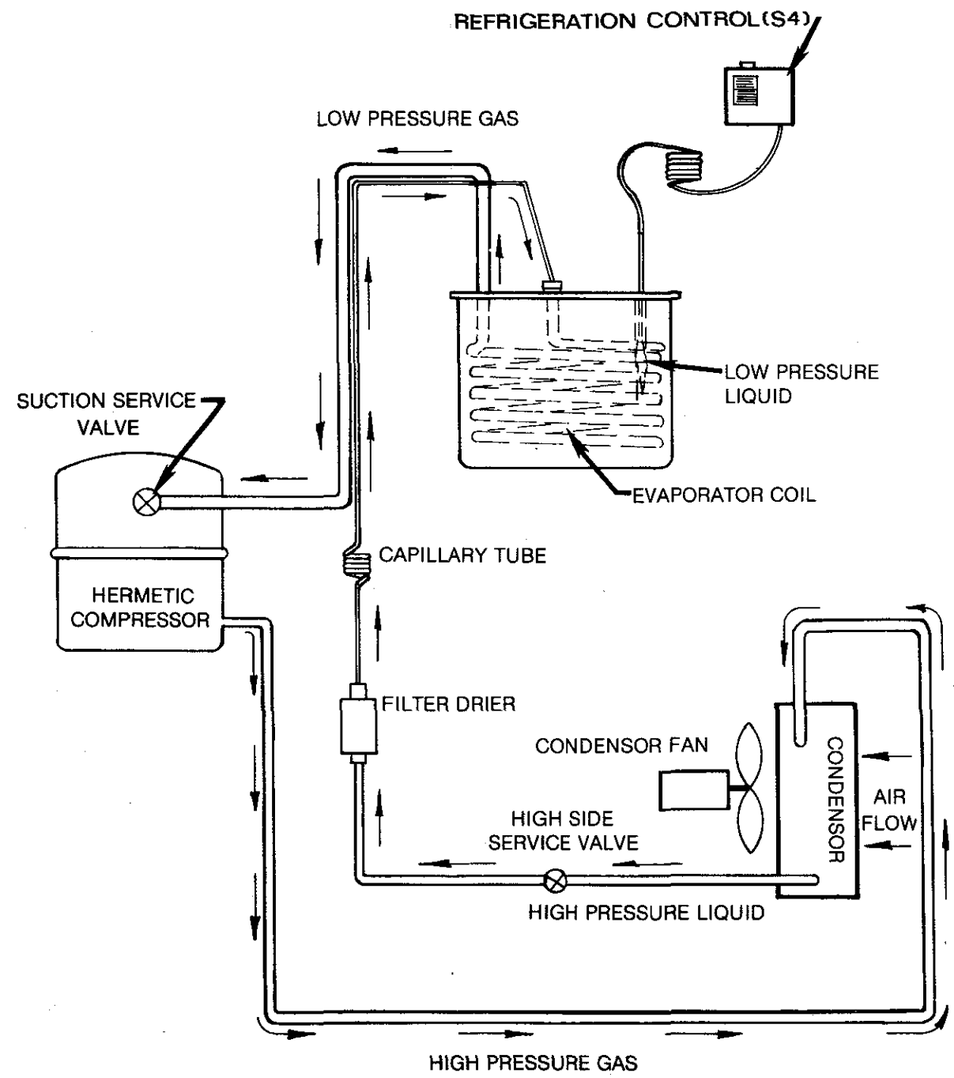
▽ LAMP GROUND

ELECTRICAL SCHEMATIC - A3 POWER SUPPLY BOARD

MTA4702

FIG. 6.10

FIG. 6.11 REFRIGERATION FLOW DIAGRAM



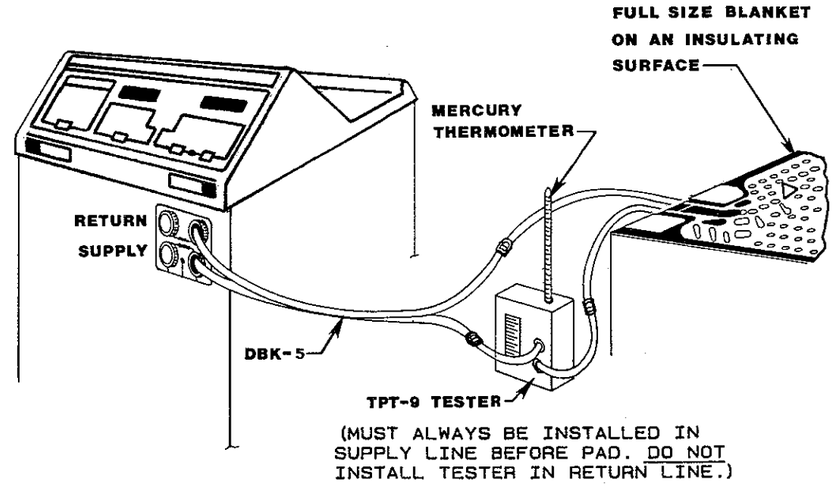


FIG. 6.12

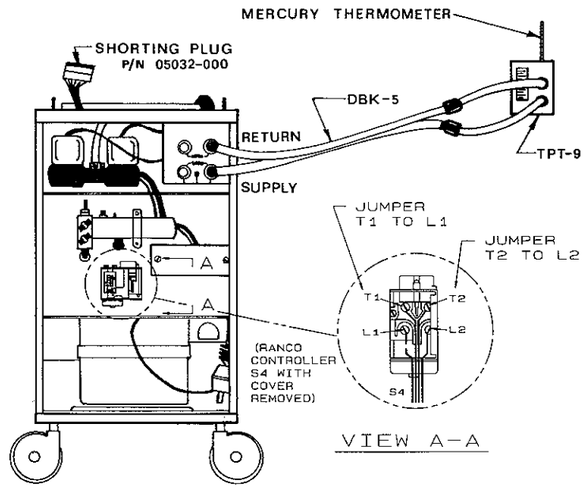


FIG. 6.13

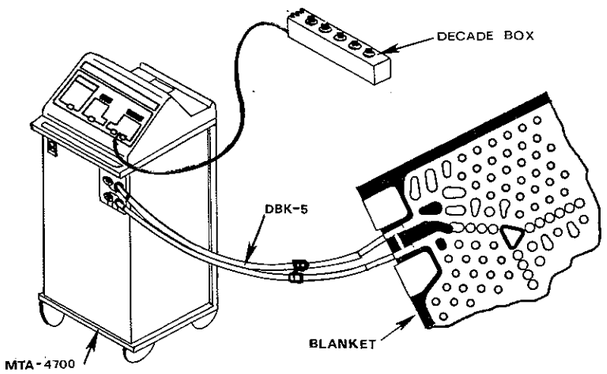


FIG. 6.14

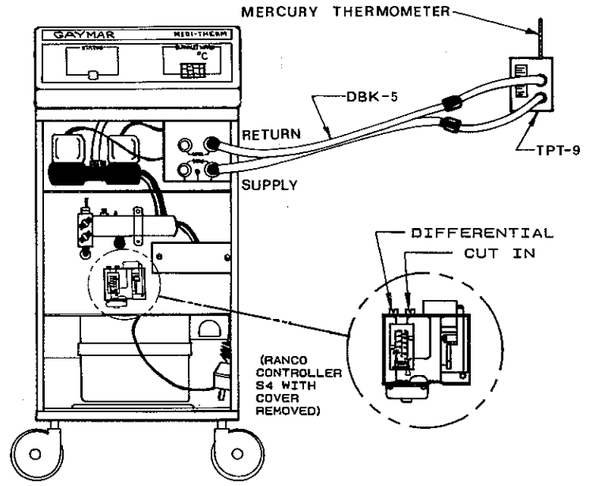


FIG. 6.15

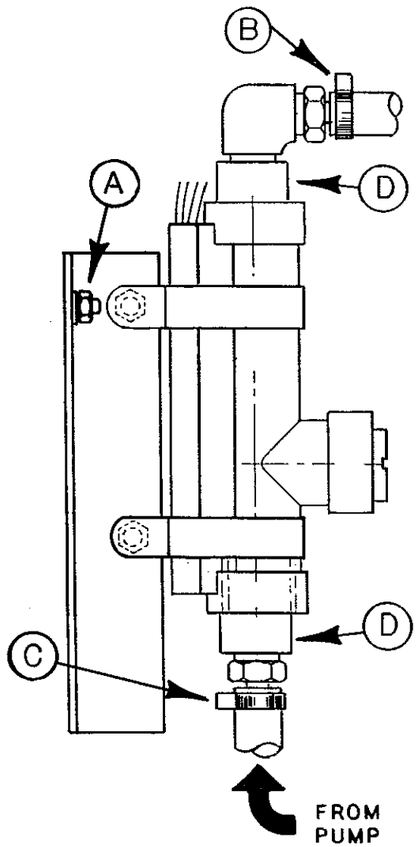


FIG. 6.16

FLOW SWITCH CLEANING PROCEDURE

a) REMOVE NUT (ITEM A) AND REMOVE ASSEMBLY.

b) LOOSEN HOSE CLAMP (ITEM B) AND REMOVE HOSE.

c) LOOSEN HOSE CLAMP (ITEM C) AND REMOVE HOSE.

d) REMOVE 1/8 NPT ADAPTORS (ITEM D). REMOVE PLUNGER.

e) CLEAN ALL PARTS WITH ALCOHOL AND REMOVE ANY FOREIGN MATTER.

f) TO REASSEMBLE, REVERSE STEPS "a" THROUGH "d".

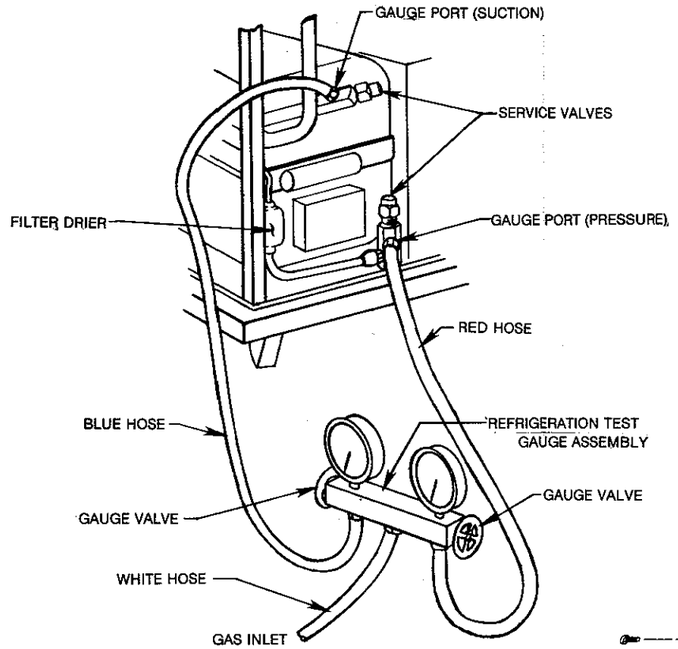


FIG. 6.17

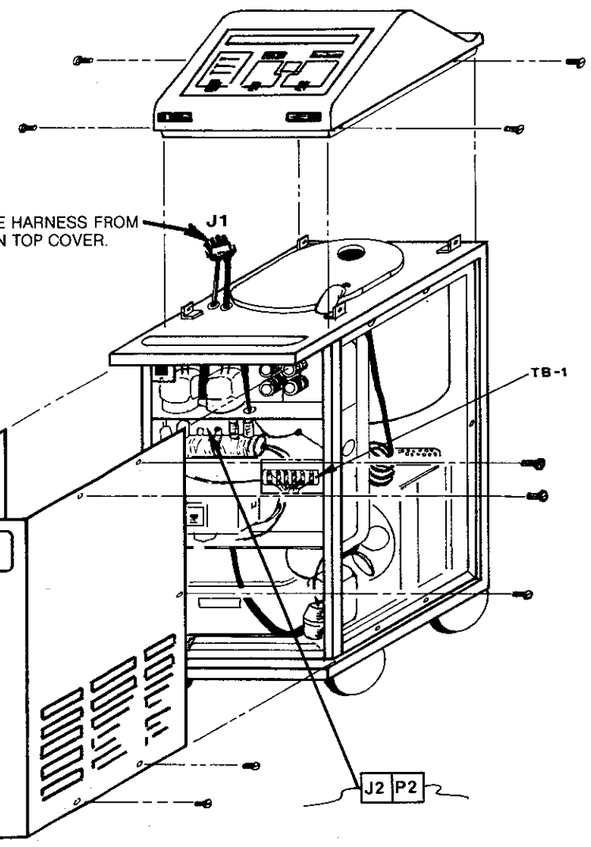


FIG. 6.18

P.C. BOARD CONNECTIONS

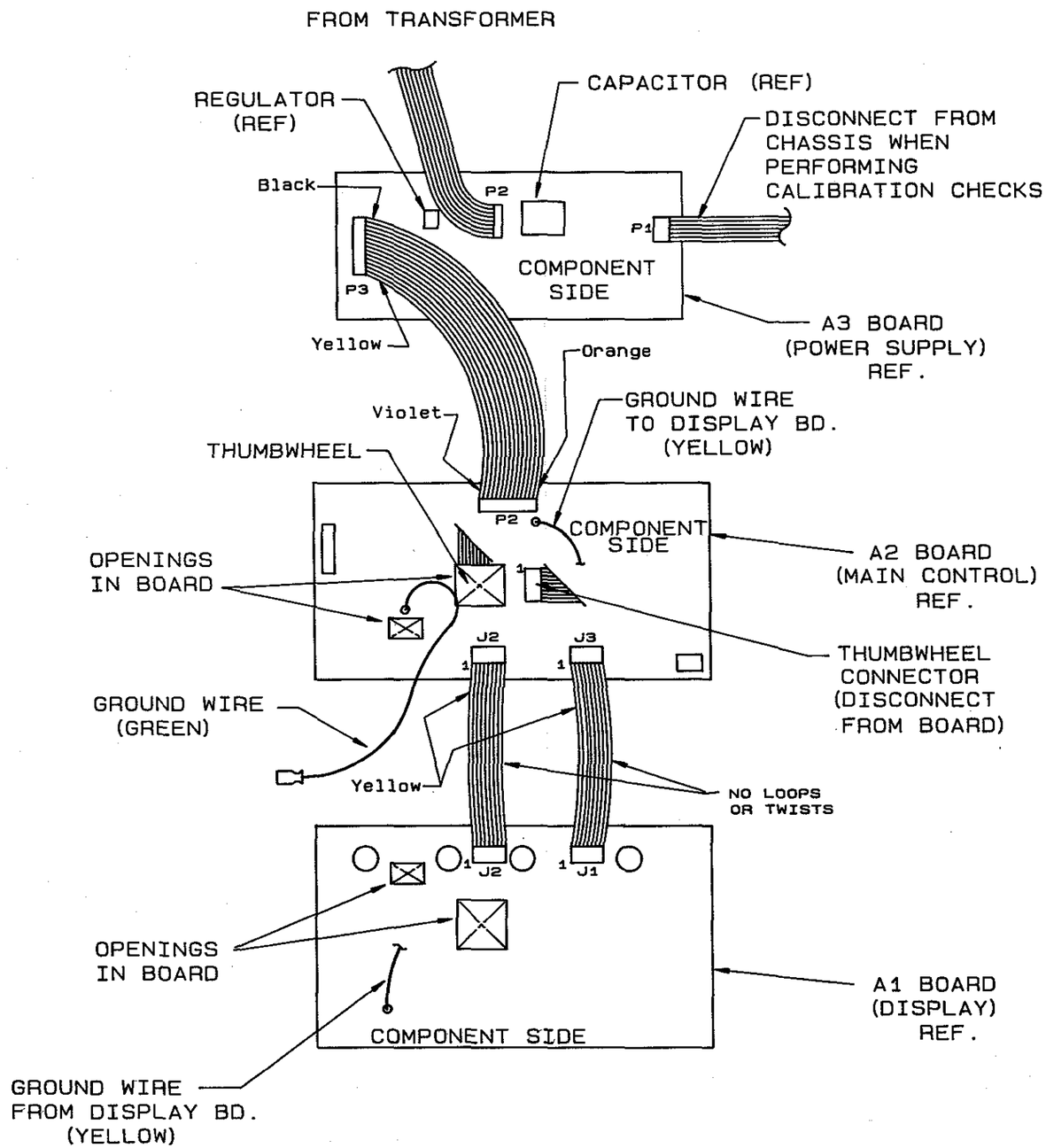


FIG. 6-19

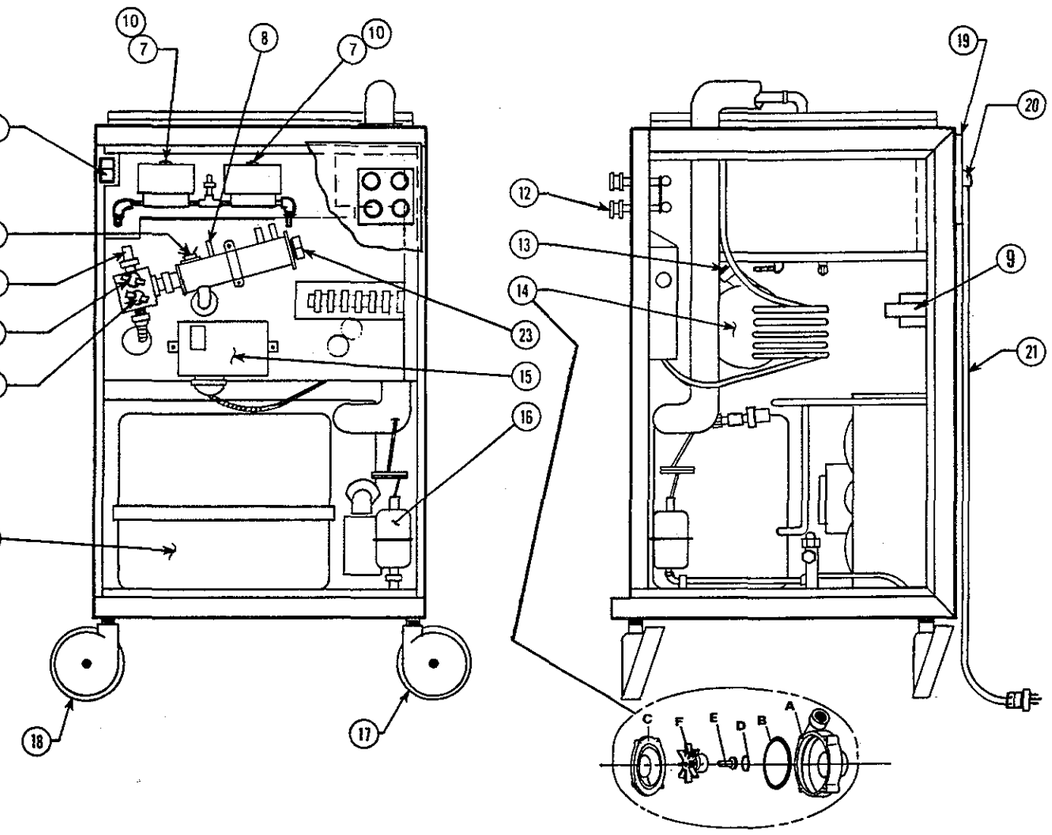


FIG. 6.20

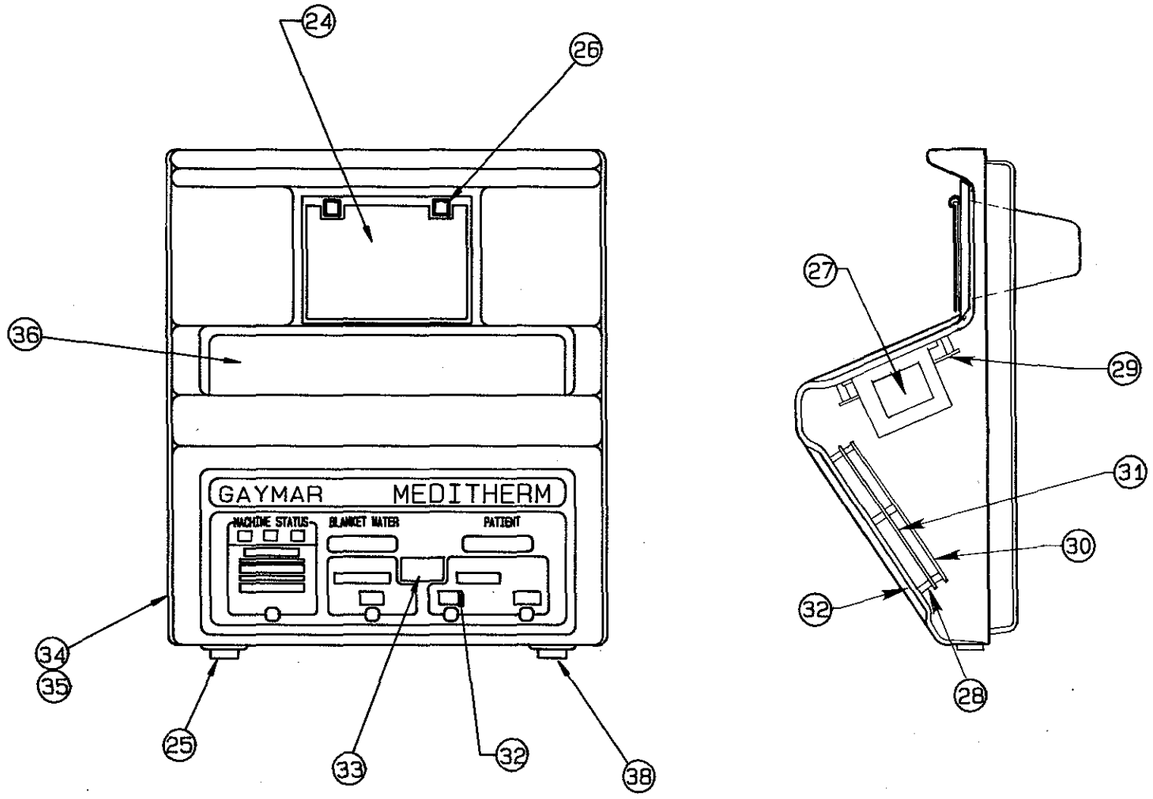

24
26
36
GAYMAR
MEDITHERM
MACHINE STATUS
BLANKET WATER
PATIENT
34
35
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FIG. 6.21

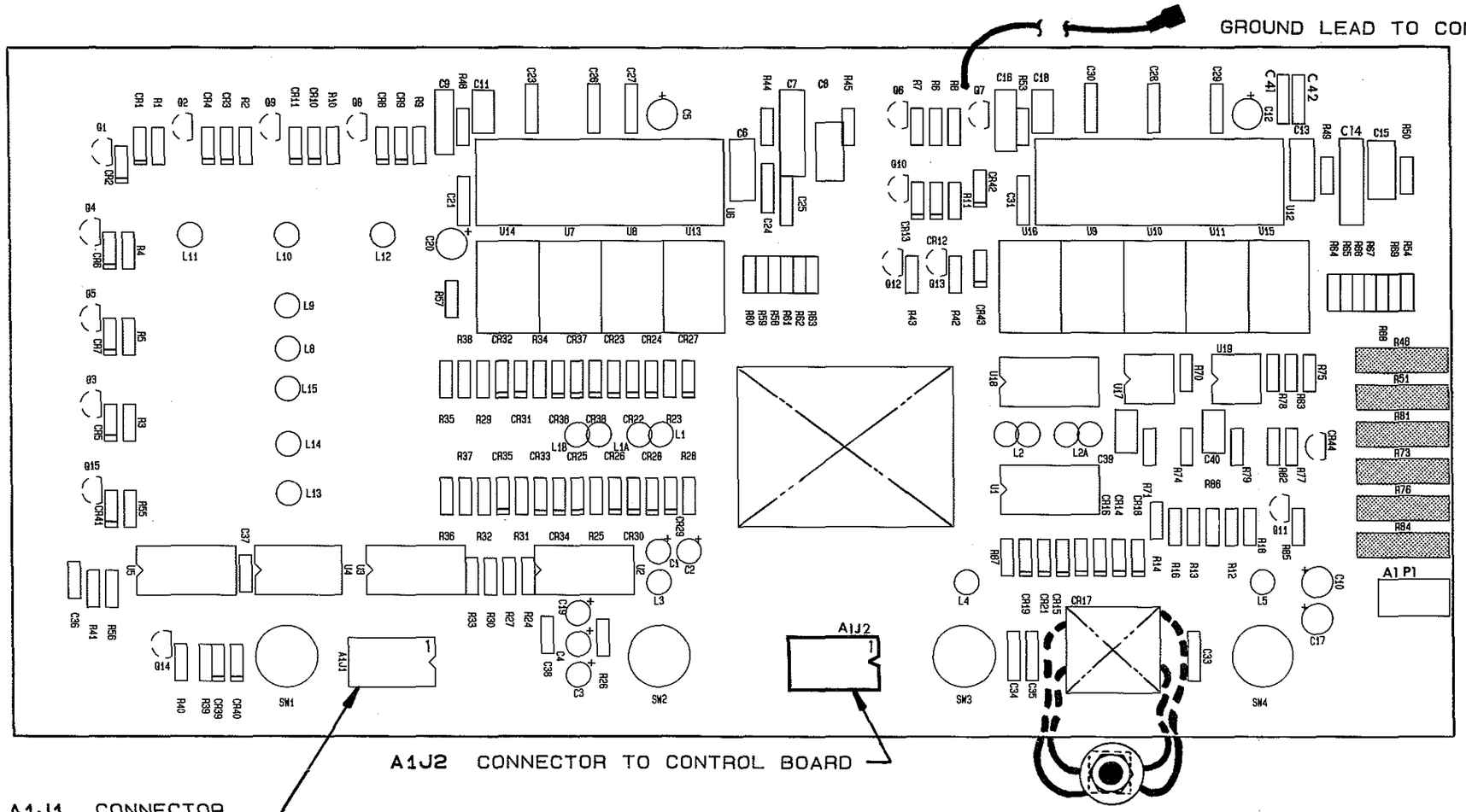
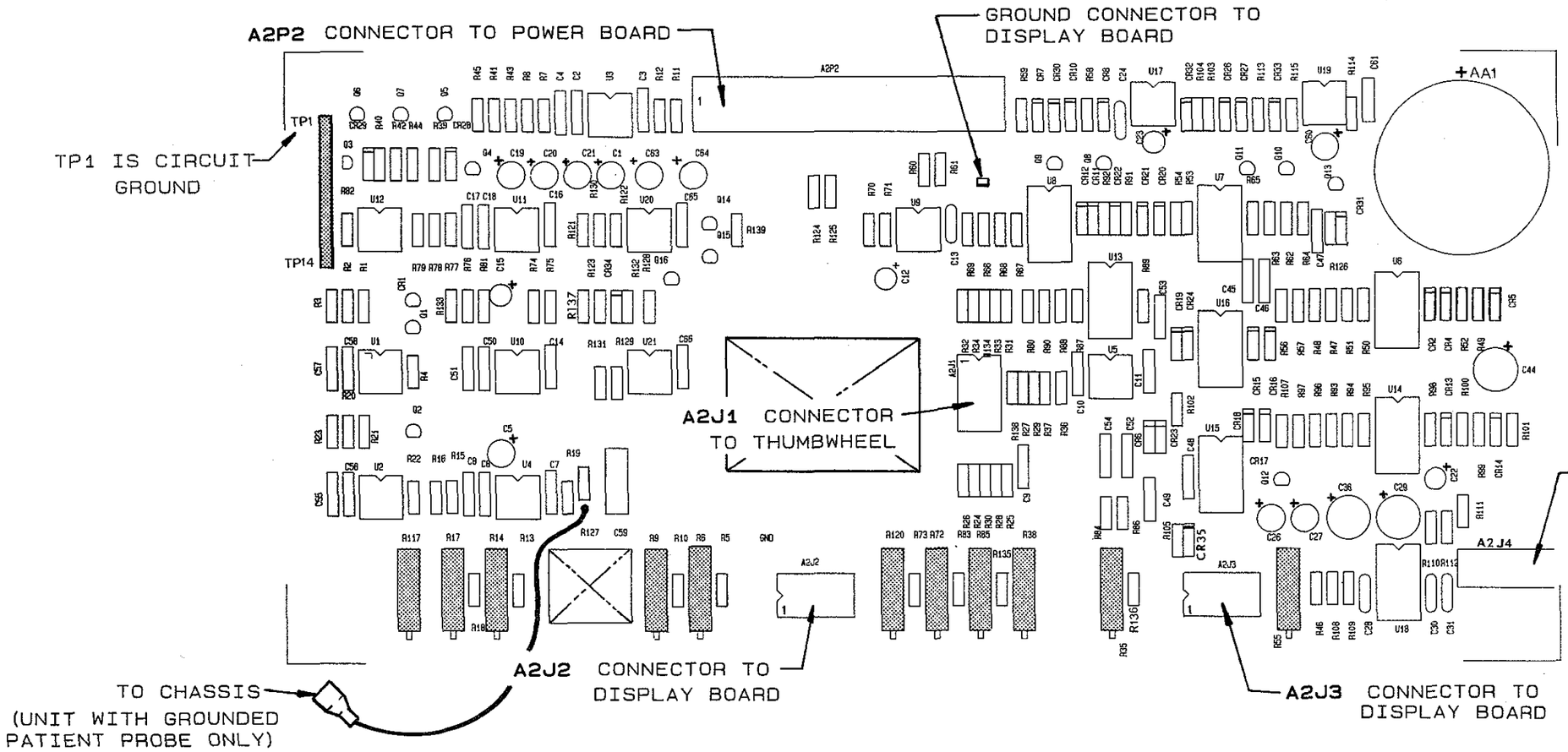


FIG. 6.22

A1 DISPLAY BOARD - SPARE PARTS

GAYMAR P/N	DESIGNATOR	DESCRIPTION
90092-025	R7	RESISTOR 100 OHM, 5%, 1/4W
90092-073	R6, R8, R24, R27 R30, R33, R35-R41 R85, R86, R87	RESISTOR 10K, 5%, 1/4W
90092-049	R11, R77	RESISTOR 1K, 5%, 1/4W
90092-065	R12, R13	RESISTOR 4.7K, 5%, 1/4W
90092-069	R1-R5, R9, R10 R14, R16, R18, R55	RESISTOR 6.8K, 5%, 1/4W
90092-089	R23, R25, R26, R28 R29, R31, R32, R34	RESISTOR 47K, 5%, 1/4W
90092-113	R44, R49	RESISTOR 470K, 5%, 1/4W
90092-121	R45, R50	RESISTOR 1M, 5%, 1/4W
90092-097	R48, R53, R56, R57	RESISTOR 100K, 5%, 1/4W
90092-043	R54, R58-R69	RESISTOR 560 OHM, 5%, 1/4W
90092-041	R42, R43	RESISTOR 470 OHM, 5%, 1/4W
90708-033	R74, R82	RESISTOR 130K, 1%, 1/4W
90708-010	R70, R71, R75, R78 R79, R83	RESISTOR 10K, 1%, 1/4W
90703-000	C1, C2, C3, C4, C19	CAPACITOR 2.2uf/63V
90707-000	C5, C10, C12, C17	CAPACITOR 33uf/35V
90741-004	C6, C13	CAPACITOR .22uf/100V
90741-003	C7, C14	CAPACITOR .47uf/100V
90741-002	C8, C15	CAPACITOR .01uf/630V
90741-001	C9, C16	CAPACITOR .1uf/100V
90702-000	C11, C18, C39, C40	CAPACITOR 100pf/500V
90701-004	C36, C37, C38	CAPACITOR .1uf/25V
90700-000	C20	CAPACITOR 10uf/50V
90701-001	C21, C23, C24, C25 C27, C29, C30, C31 C33, C34, C35, C41 C42	CAPACITOR .05uf/25V
90456-000	CR1, CR3, CR9 CR10, CR12, CR13, CR22-CR40	DIODE IN914
90730-000	CR44	DIODE LM336Z
90727-000	CR2, CR4-CR8, CR11 CR14-CR19, CR21 CR41, CR42, CR43	DIODE IN4004
90737-001	Q1-Q5, Q8, Q9 Q11-Q15	TRANSISTOR 2N6715
90714-000	Q6	TRANSISTOR 2N3904
90737-002	Q7, Q10	TRANSISTOR 2N6727
90742-004	U2	INTEGRATED CIRCUIT CD4043
90742-001	U1	INTEGRATED CIRCUIT CA3081
90488-000	U4	INTEGRATED CIRCUIT CD4001
90742-002	U3	INTEGRATED CIRCUIT CA3082
90742-003	U5	INTEGRATED CIRCUIT CA4009
90743-000	U6, U12	INTEGRATED CIRCUIT ICL7107CPL
90742-005	U18	INTEGRATED CIRCUIT CD40538
90733-003	U17, U19	INTEGRATED CIRCUIT LM308
90761-000	U7-U11, U13-U16	LED LN516RA
90728-006	R46, R51, R76, R84	TRIM POT 25K 15 TURN CERMET
90728-008	R73, R81	TRIM POT 5K 15 TURN CERMET
77146-000	L1, L1A, L2, L2A L3, L4, L5, L8-L15	LITES OSHINO #OL382BRP
90897-000	SW1, SW2, SW3, SW4	SWITCH, WILD ROVER TC/C

NOTE: CMOS COMPONENTS ARE STATIC SENSITIVE. HANDLE WITH CAUTION.


A2P2 CONNECTOR TO POWER BOARD
GROUND CONNECTOR TO DISPLAY BOARD
TP1 IS CIRCUIT GROUND
TP1
TP14
A2J1 CONNECTOR TO THUMBWHEEL
A2J4 CONNECTOR TO AUDIBLE ALARM
A2J2 CONNECTOR TO DISPLAY BOARD
A2J3 CONNECTOR TO DISPLAY BOARD
TO CHASSIS (UNIT WITH GROUNDED PATIENT PROBE ONLY)
+AA1

NOTE:
CMOS COMPONENTS ARE STATIC SENSITIVE. HANDLE WITH CAUTION.

A2 MAIN CONTROL - A700 SPARE PARTS

GAYMAR P/N	DESIGNATOR	DESCRIPTION
90700-000	C1, C5, C19, C20 C21, C26, C27, C60	CAPACITOR 10uf/50V
90701-001	C2, C4, C6, C8, C9 C10, C17, C18, C45-C58	CAPACITOR .05uf/25V
90702-000	C3, C7, C11, C14, C16, C65, C66	CAPACITOR 100pf/500V
90703-000	C12, C15, C22, C23	CAPACITOR 2.2uf/63V
90701-004	C13, C24, C28, C30, C31	CAPACITOR 0.1uf/25V
90504-000	C29	CAPACITOR 33ufTANTALUM
90704-000	C36	CAPACITOR 47uf/35V
90741-002	C59	CAPACITOR .01uf/630V
90707-000	C44, C63, C64	CAPACITOR 33uf/35V
90701-006	C61	CAPACITOR .01uf/25V
90708-003	R1, R2, R5, R8, R10, R16, R18, R20, R21, R24, R79, R80, R93, R95	RESISTOR 1K, 1%, 1/4W
90092-067	R3	RESISTOR 5.6K, 5%, 1/4W
90092-049	R4, R22, R23, R48, R50, R87, R88, R96, R97, R123	RESISTOR 1K, 5%, 1/4W
90708-008	R7	RESISTOR 4.75K, 1%, 1/4W
90335-012	R11	RESISTOR 12.4K, .1%, 1/8W
90335-011	R12	RESISTOR 5.7K, .1%, 1/8W
90708-005	R13	RESISTOR 1.78K, 1%, 1/4W
90708-004	R19	RESISTOR 1.5K, 1%, 1/4W
90708-013	R31, R132	RESISTOR 49.9K, 1%, 1/4W
90708-011	R29, R128, R129	RESISTOR 20K, 1%, 1/4W
90708-009	R27, R73	RESISTOR 4.99K, 1%, 1/4W
90708-010	R28, R74, R75, R131	RESISTOR 10K, 1%, 1/4W
90708-014	R32, R77, R78	RESISTOR 100K, 1%, 1/4W
90708-015	R33, R133	RESISTOR 200K, 1%, 1/4W
90708-030	R15, R94	RESISTOR 1.3K, 1%, 1/4W
90708-016	R34	RESISTOR 402K, 1%, 1/4W
90708-029	R121, R130	RESISTOR 2M, 1%, 1/4W
90092-033	R36	RESISTOR 220 OHM, 5%, 1/4W
90708-002	R37	RESISTOR 442 OHM, 1%, 1/4W
90092-097	R39, R40, R41, R43, R44, R45, R102, R108, R109, R124, R137, R139	RESISTOR 100K, 5%, 1/4W
90092-073	R42, R53, , R54, R60, R61, R66-R69, R105, R111, R112, R122, R125	RESISTOR 10K, 5%, 1/4W
90092-056	R126	RESISTOR 2K, 5%, 1/4W
90092-089	R49, R52, R64, R65, R91, R92, R100, R101, R114	RESISTOR 47K, 5%, 1/4W
90708-022	R56, R86	RESISTOR 316 OHM, 1%, 1/4W
90092-047	R58, R59	RESISTOR 820 OHM, 5%, 1/4W
90092-065	R62, R63, R71, R76, R107, R113	RESISTOR 4.7K, 5%, 1/4W
90708-028	R81	RESISTOR 402 OHM, 1%, 1/4W
90092-113	R98, R99	RESISTOR 470K, 5%, 1/4W
90092-143	R110	RESISTOR 8.2M, 5%, 1/4W
90092-123	R70	RESISTOR 1.2M, 5%, 1/4W
90092-121	R82, R104	RESISTOR 1M, 5%, 1/4W
90092-145	R47, R51, R89, R90	RESISTOR 10M, 5%, 1/4W
90708-031	R136	RESISTOR 37.4 OHM, 1%, 1/4W
90095-047	R127	RESISTOR 820K, 5%, 1/2W
90708-027	R25	RESISTOR 2K, 1%, 1/4W
90708-007	R26	RESISTOR 4.02K, 1%, 1/4W
90092-084	R115	RESISTOR 30K, 5%, 1/4W
90708-012	R30	RESISTOR 40.2K, 1%, 1/4W
90708-019	R46, R83	RESISTOR 4.12K, 1%, 1/4W
90708-020	R84	RESISTOR 100 OHM, 1%, 1/4W
90708-021	R57	RESISTOR 133 OHM, 1%, 1/4W
90092-108	R103	RESISTOR 300K, 5%, 1/4W
90714-000	Q1, Q7-Q12, Q14	TRANSISTOR 2N3904
90736-000	Q2, Q5, Q6, Q15	TRANSISTOR 2N5087
90738-000	Q3, Q4, Q16	TRANSISTOR 2N5654
90737-001	Q13	TRANSISTOR 2N6715
90728-003	R6	TRIM POT 500 OHM, 15 TURN CERMET
90728-002	R9, R17, R35	TRIM POT 100 OHM, 15 TURN CERMET
90728-004	R14, R55, R85	TRIM POT 1K, 15 TURN CERMET
90728-001	R38	TRIM POT 50 OHM, 15 TURN CERMET
90728-005	R72, R117	TRIM POT 10K, 15 TURN CERMET
90728-008	R120	TRIM POT 5K, 15 TURN CERMET
90456-000	CR2, CR4-CR8, CR10-CR24, CR26-CR32, CR34	DIODE 1N914
90730-000	CR1	DIODE LM336Z
90727-000	CR33	DIODE 1N4004
90715-001	CR35	DIODE 1N749
90733-002	U1, U2, U5, U12	INTEGRATED CIRCUIT LM741
90733-003	U3, U4, U10, U11, U20, U21	INTEGRATED CIRCUIT LM308
90734-001	U6, U8, U13, U14	INTEGRATED CIRCUIT LM747
90488-000	U7, U15, U16	INTEGRATED CIRCUIT CD4001
90733-001	U9, U17, U19	INTEGRATED CIRCUIT LM555
90734-002	U18	INTEGRATED CIRCUIT LM556

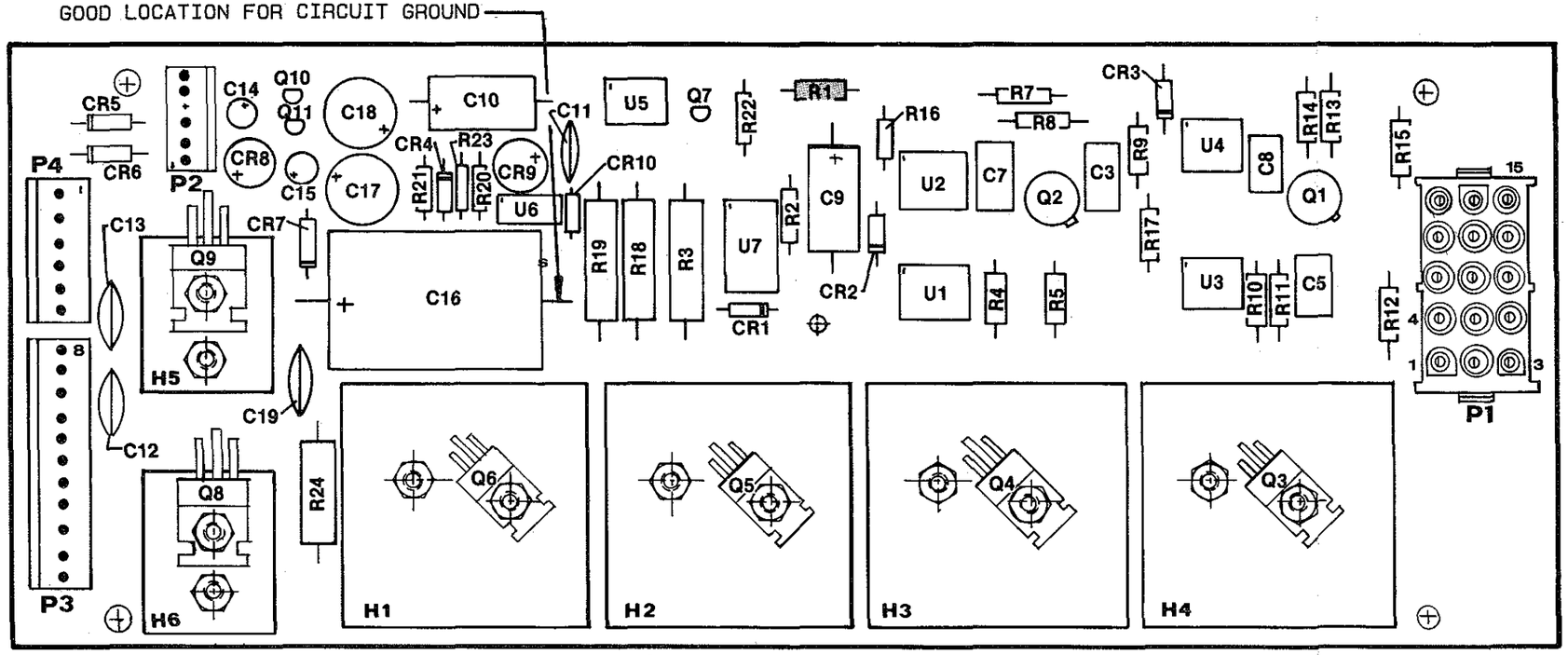
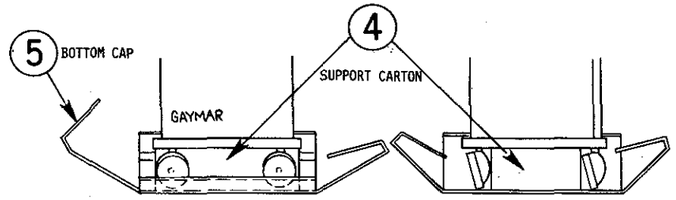


FIG. 6.24

A3 POWER SUPPLY BOARD SPARE PARTS

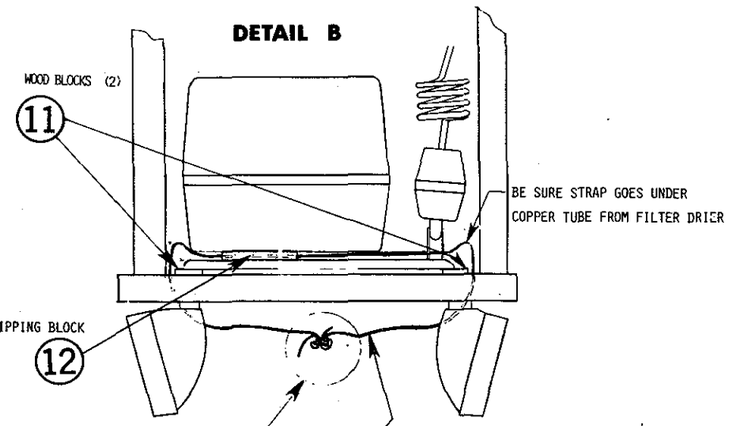
GAYMAR P/N	DESIGNATOR	DESCRIPTION
90709-000	Q3, Q4, Q5, Q6	TRIAC MOTOROLA 2N6346A
90482-000	Q1, Q2	TRIAC RCA T2300
90714-000	Q7	TRANSISTOR 2N3904
90718-000	U1, U2, U4, U6	INTEGRATED CIRCUIT MOTOROLA MOC-3010
90886-000	U3	INTEGRATED CIRCUIT MOTOROLA MOC-3021
90574-000	U5	INTEGRATED CIRCUIT GE H11A1
90454-000	U7	INTEGRATED CIRCUIT GAYMAR
90710-000	Q8	INTEGRATED CIRCUIT NATIONAL LM340T-5
90711-000	Q9	INTEGRATED CIRCUIT NATIONAL LM340T-12
90712-001	Q10	INTEGRATED CIRCUIT NATIONAL LM320L-12
90712-000	Q11	INTEGRATED CIRCUIT NATIONAL LM320L-5
90491-000	CR8, CR9	BRIDGE RECTIFIER GENERAL INST. W04M
90717-000	CR5, CR6	DIODE IN5391
90727-000	CR7	DIODE IN4004
90456-000	CR1, CR2, CR3	DIODE IN914
90715-001	CR4	DIODE IN749
90716-000	CR10	DIODE GE P/N ST2

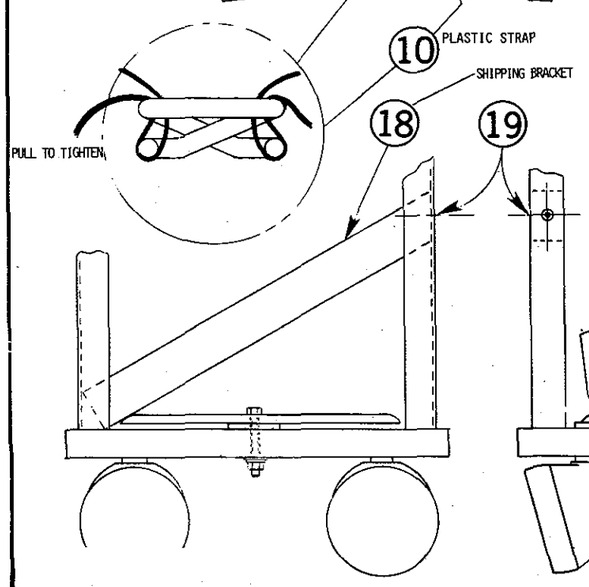
GAYMAR P/N	DESIGNATOR	DESCRIPTION
90898-002	C5	CAPACITOR .001uf/600V
90719-000	C16	CAPACITOR 2200uf/35V
90720-000	C17, C18	CAPACITOR 470uf/35V
90701-004	C12, C13, C19	CAPACITOR 0.1uf/25V
90703-000	C14, , C15	CAPACITOR 2.2uf/63V
90898-001	C7, C8	CAPACITOR .01uf/400V
90721-000	C9, C10	CAPACITOR 100uf/50V
90701-008	C11	CAPACITOR 0.01uf/100V
90465-030	R24	RESISTOR 15 OHM, 5%, 5W
90096-016	R4, R7, R10, R13	RESISTOR 180 OHM, 10%, 1/2W
90096-017	R5, R8, R11, R14	RESISTOR 220 OHM, 10%, 1/2W
90096-013	R12	RESISTOR 100 OHM, 10%, 1/2W
90092-047	R16	RESISTOR 820 OHM, 5%, 1/4W
90465-116	R3	RESISTOR 8.2K, 5%, 5W
90465-107	R18	RESISTOR 5K, 5%, 5W
90095-039	R17, R20	RESISTOR 390 OHM, 5%, 1/2W
90095-052	R21	RESISTOR 1.3K, 5%, 1/2W
90465-102	R19	RESISTOR 3.9K, 5%, 5W
90092-138	R22	RESISTOR 5.1 OHM, 5%, 1/4W
90095-067	R23	RESISTOR 5.6K, 5%, 1/2W
90708-023	R2	RESISTOR 806 OHM, 1%, 1/4W
90095-065	R9, R15	RESISTOR 4.7 OHM, 5%, 1/2W
90464-002	R1	TRIM POTENTIOMETER, 500 OHM



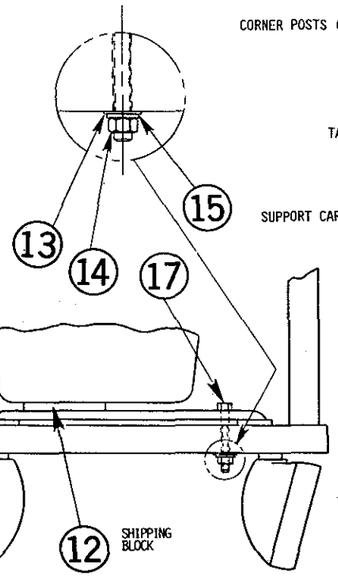
DETAIL A

DETAIL B



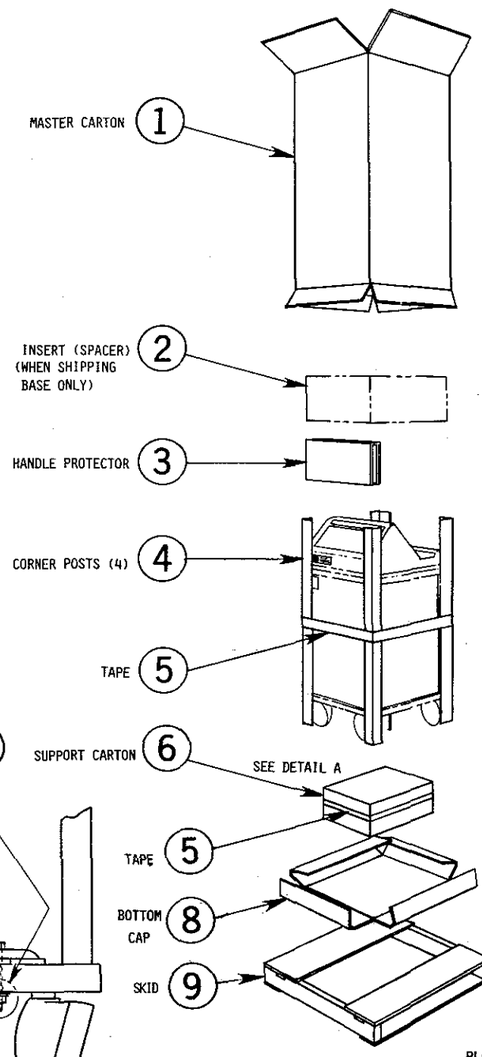


DETAIL D



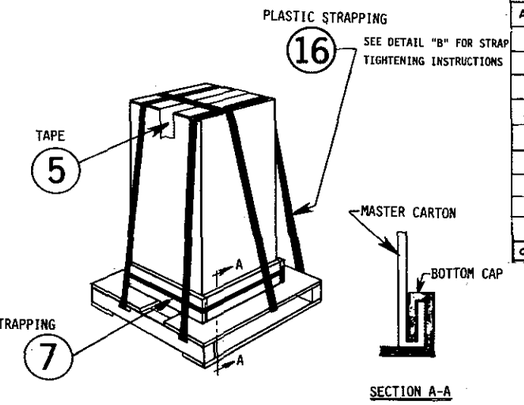
DETAIL C

EXPLODED VIEW



INSTRUCTIONS

1) DRAIN ALL WATER FROM MEDI-THERM (SEE OPERATORS MANUAL FOR INSTRUCTIONS). REMOVE WRAPAROUND HOUSING.
2) TIP UNIT AND LOOK AT THE BOTTOM OF THE CHASSIS. IF THERE ARE CIRCLES DRAWN AROUND TWO HOLES, SKIP STEPS 3 THROUGH 6. IF THERE ARE NO HOLES CIRCLED, SKIP STEP 7.
3) PLACE TWO (2) WOOD BLOCKS (ITEM 11) UNDER THE COMPRESSOR ON 2 SIDES (SEE DETAIL B).
4) LAY THE MACHINE ON ITS BACK.
5) INSERT PLASTIC STRAP (ITEM 10) UP THROUGH THE LARGER VENTILATION HOLE IN THE BASE, OVER ONE SIDE OF THE WOOD BLOCK, THEN OVER THE BASE OF THE COMPRESSOR, OVER THE OTHER SIDE OF THE WOOD BLOCK, AND THEN BACK DOWN THROUGH THE LARGEST HOLE ON THE OTHER SIDE OF THE BASE. (SEE DETAIL B)
6) ADD CLIP AND TIGHTEN STRAP AS SHOWN IN DETAIL B.
7) PUSH ONE WOOD BLOCK (ITEM 11) UNDER EACH SIDE OF THE COMPRESSOR BASE. TO EACH OF THE CIRCLED HOLES, ADD ONE HEX BOLT (ITEM 17), ONE PLAIN WASHER (ITEM 13), ONE LOCKWASHER (ITEM 15) AND ONE HEX NUT (ITEM 14) AND TIGHTEN (SEE DETAIL C).
8) INSERT SHIPPING BRACKET (ITEM 18) AS SHOWN IN DETAIL "D". INSERT SCREW THROUGH HOUSING AND INTO SHIPPING BRACKET AS SHOWN IN DETAIL "C". (THIS STEP TO BE DONE ONLY IF THERE IS A HOLE IN THE HOUSING. SEE DETAIL "C".)
9) PUSH SHIPPING BLOCK (ITEM 12) FIRMLY BETWEEN THE COMPRESSOR AND THE COMPRESSOR BASE. (SEE DETAILS B AND C). REPLACE WRAPAROUND HOUSING.
10) PLACE BOTTOM CAP (ITEM 8) ON FLOOR, AS SHOWN IN EXPLODED VIEW.
11) TAPE UP SUPPORT CARTON (ITEM 6) AND PLACE ON TOP OF THE BOTTOM CAP.
12) STAND THE MACHINE ON TOP OF THE SUPPORT CARTON WITH THE WHEELS ORIENTED AS SHOWN IN DETAIL A.
13) TAPE DOWN THE ALARM SILENCER SWITCH (AUTOMATIC MODELS ONLY).
14) POSITION THE FOUR (4) CORNER POSTS (ITEM 4) ON THE CORNERS OF THE UNIT, MAKING SURE THAT THE LEFT REAR POST IS POSITIONED SO THAT THE HOLE IN THE POST IS DIRECTLY OVER THE POWER CORD BUSHING. TAPE IN PLACE. IT DOES NOT MATTER WHERE THE HOLES IN THE REMAINING THREE POSTS ARE POSITIONED.
15) IF YOU ARE RETURNING ONLY THE CHASSIS ASSY. (MT-4000), PLACE THE INSERT SPACER (ITEM 2) ON TOP OF THE CHASSIS.
16) SLIDE THE MASTER CARTON (ITEM 1) OVER THE UNIT.
17) PUSH THE HANDLE PROTECTOR (ITEM 3) DOWN BEHIND THE TWO FRONT CORNER POSTS SO THAT IT RESTS ON THE HANDLE.
18) TAPE THE TOP OF THE BOX CLOSED, USING ITEM 5, TAPE SUPPLIED.
19) STRAP THE BOTTOM CAP WITH THE 8' PLASTIC STRAP (ITEM 7). PLEASE NOTE THAT THIS MAY BE EASIER TO DO IF THE MACHINE IS LAYED ON ITS SIDE. ALSO; IF STEEL BANDING IS AVAILABLE, PLEASE USE IT INSTEAD OF PLASTIC BANDING SUPPLIED, FOR EXTRA PROTECTION.
20) LIFT THE CARTON ASSEMBLY ONTO SKID (ITEM 9).
21) THREAD TWO STRAPS (ITEM 16) THROUGH SLOTS IN THE SKID AND OVER THE TOP OF THE CARTON AND FASTEN WITH CLIP, AS SHOWN IN THE ASSEMBLED CARTON VIEW.
22) WRAP 1 STRAP (ITEM 16) IN THE OPPOSITE DIRECTION OF THE TWO STRAPS IN STEP #21.



SECTION A-A

ASSEMBLED CARTON

QUAN.	PART NO.		DESCRIPTION	ITEM
1	90259-011	S	SCREW	19
1	60149-000	S	SHIPPING BRACKET	18
2	90403-001	S	HEX BOLT	17
3	60138-000	S	PLASTIC STRAP (13 FT) W/CLIP	16
2	90048-011	S	LOCK WASHER 3/8"	15
2	90763-010	S	HEX NUT	14
2	90044-007	S	PLAIN WASHER 3/8"	13
1	60137-000	B	SHIPPING BLOCK	12
3	60150-000	S	WOOD BLOCKS	11
1	60140-000	S	PLASTIC STRAP (5 FT) W/CLIP	10
A/R	50066-000	C	SKID	9
1	60115-000	C	BOTTOM CAP	8
1	60139-000	S	PLASTIC STRAP (8 FT) W/CLIP	7
1	60117-000	B	SUPPORT CARTON	6
A/R	50515-000	S	TAPE-3/4" NYLON FILAMENT	5
4	60116-000	B	CORNER POST	4
1	60118-000	B	HANDLE PROTECTOR	3
1	60136-000	B	INSERT (SPACER)	2
1	60114-000	C	MASTER CARTON	1
X	77215-000		CUSTOMER RETURN KIT	

FIG. 6.25